

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-5. (Canceled)

Claim 6. (Canceled) A substantially pure unglycosylated human mitotic kinesin protein excluding kid comprising a motor domain.

Claim 7. (Currently amended) A substantially pure unglycosylated ~~human mitotic kinesin protein, wherein said kinesin protein is selected from the group consisting of chromokinesin, KSP, fragment of~~ CENP-E, MKLP1, HSET, Kif15, Kin2, Kif1A and MCAK that has:

(a) at least 80% amino acid sequence identity to SEQ ID NO:88; and

(b) the ability to hydrolyze ATP in the presence of microtubules.

Claim 8. (Canceled) A substantially pure unglycosylated human kinesin protein comprising a motor domain and at least three epitope tags.

Claim 9. (Withdrawn) A substantially pure unglycosylated kinesin protein comprising a motor domain, wherein said kinesin is selected from the group consisting of Kin2, chromokinesin, BimC, HSET, Kif15, Kif1A and MKLP1.

Claims 10-14. (Canceled)

Claim 15. (Currently Amended) A substantially purified unglycosylated CENP-E peptide selected from the group consisting of K335, Q475, D679, FL1, P166, H195, FL2, E433, R494, E658, L360, K491, S553, M329 (amino acids Ala2-Met329 of SEQ ID NO: 88), T340 (amino acids Ala2-Thr340 of SEQ ID NO: 88), S405 (amino acids Ala2-Ser405 of SEQ ID NO: 88), V465 (amino acids Ala2-Val465 of SEQ ID NO: 88), and T488 (amino acids Ala2-Thr488 of SEQ ID NO: 88), M1, M2, M3, M4, M5, M6, FL3, A2N370, A2M511, K519, E152.2, Q151.2, Q353 and M472.

Claim 16. (New) A peptide according to claim 15, wherein the peptide is M329 (amino acids Ala2-Met329 of SEQ ID NO: 88).

Claim 17. (New) A peptide according to claim 15, wherein the peptide is T340 (amino acids Ala2-Thr340 of SEQ ID NO: 88).

Claim 18. (New) A peptide according to claim 15, wherein the peptide is S405 (amino acids Ala2-Ser405 of SEQ ID NO: 88).

Claim 19. (New) A peptide according to claim 15, wherein the peptide is V465 (amino acids Ala2-Val465 of SEQ ID NO: 88).

Claim 20. (New) A peptide according to claim 15, wherein the peptide is T488 (amino acids Ala2-Thr488 of SEQ ID NO: 88).

Claim 21. (New) A peptide according to claim 15, wherein the peptide is produced by expression in bacteria.